IN THE CLAIMS

Please add claims 27-54, as follows:

27. The recording medium according to claim 26, wherein the wobbles of the groove tracks are out of phase with the wobbles of the next land tracks and the wobbles of the land tracks are in phase with the wobbles of the next groove tracks.

28. The recording medium according to claim 27, wherein the wobbles of the groove tracks have a phase difference of π with the wobbles of the next land tracks.

29. The recording medium according to claim 26, wherein the wobbles of the land tracks are out of phase with the wobbles of the next groove tracks and the wobbles of the groove tracks are in phase with the wobbles of the next land tracks.

30. The recording medium according to claim 29, wherein the wobbles of the groove tracks have a phase difference of π with the wobbles of the next land tracks.

31. The recording medium according to claim 25, further comprising physical identifier headers formed in centers of the land and groove tracks, respectively.

32. The recording medium according to claim 26, further comprising physical identifier headers formed in centers of the land and groove tracks, respectively.

33. The recording medium according to claim 25, wherein the land and groove tracks store information reproducible by a light beam of approximately 410nm.

34. The recording medium according to claim 26, wherein the land and groove tracks store information reproducible by a light beam of approximately 410nm.

35. An optical recording and/or reproducing apparatus having a pickup for tracking an optical recording medium and a servo to move the pickup, comprising:

a photo detector to output two signals in response to a light signal reflected from the recording medium having land tracks and groove tracks, wherein the land tracks and groove tracks are wobbled, and the groove tracks have a same frequency as and are out of phase with the land tracks; and

a servo control unit to determine a wobble signal from the two signals, and in response, generate a control signal to move the servo.

36. The optical recording and/or reproducing apparatus according to claim 35, wherein the servo control unit comprises:

a wobble signal detector to detect the wobble signal from the two signals;

a wobble signal determiner to determine whether one of the tracks, which is currently tracked by the pickup, is a groove track or a land track based on the wobble signal, to generate a determination signal; and

a controller to generate the control signal based upon the wobble signal and the determination signal.

37. The optical recording and/or reproducing apparatus according to claim 35, wherein the wobble signal detector comprises:

an adder to generate an added signal by adding the two signals; and

a first sample and hold circuit to generate the wobble signal based upon the added signal.

38. An optical recording and/or reproducing apparatus having a pickup for tracking an optical recording medium and a servo to move the pickup, comprising:

a photo detector to output two signals in each of two channels in response to a light signal reflected from the recording medium having land tracks and groove tracks, wherein the

land tracks and groove tracks are wobbled, and the groove tracks have a same frequency as and are out of phase with the land tracks; and

a servo control unit to determine at least one wobble signal from at least one of the two channels, respectively, and in response, generate a control signal to move the servo.

39. The optical recording and/or reproducing apparatus according to claim 38, wherein the wobbles of the groove tracks or the land tracks which are a first type of tracks are out of phase with the wobbles of the next first type of tracks and the wobbles of the other type of tracks are in phase with the wobbles of the next other type of tracks, or the wobbles of the groove tracks and the land tracks are out of phase with the wobbles of the next other types of tracks, the servo control unit comprising:

a wobble signal detector to detect the at least one wobble signal from the at least one of the two channels;

a wobble signal determiner to determine whether one of the tracks, which is currently tracked by the pickup, is a groove track or a land track based on the at least one wobble signal, to generate a determination signal; and

a controller to generate the control signal based upon the at least one wobble signal and the determination signal.

40. The optical recording and/or reproducing apparatus according to claim 39, wherein the wobble signal detector comprises:

an adder to generate an added signal by adding the two signals in the first one of the two channels;

a first sample and hold circuit to generate a first wobble signal based upon the added signal;

a subtracter to generate a subtraction signal by subtracting one of the two signals from the other one of the two signals in the second one of the two channels; and

a second sample and hold circuit to generate a second wobble signal based upon the subtraction signal;

wherein the wobble signal determiner generate the determination signal based upon the first and second wobble signals.

41. The optical recording and/or reproducing apparatus according to claim 40, wherein the wobbles formed on one of the groove tracks have a phase difference of π with the wobbles of a very next groove track in a radial direction of the recording medium, the wobbles formed on one of the land tracks have a phase difference of π with the wobbles of a very next land track in the radial direction of the recording medium, and the controller detects positions of the land tracks and the groove tracks and detects whether a corresponding land or groove track number is an odd number or an even number based upon the determination signal and the first and second wobble signals.

42. The optical recording and/or reproducing apparatus according to claim 41, wherein the recording medium is a rewritable disk, and the controller uses the wobble signals from both the first and second channels as switching signals between the groove tracks and the land tracks.

43. The optical recording and/or reproducing apparatus according to claim 41, wherein the recording medium further comprises physical identifier areas in each of the land and groove tracks, the first and second sample and hold circuits detect the physical identifier areas in the first and second channels, respectively, and the controller generates the control signal based upon the detected physical identifier areas.

44. The optical recording and/or reproducing apparatus according to claim 40, wherein the wobbles formed on one of the groove tracks have a phase difference of π with the wobbles of a very next groove track in a radial direction of the recording medium, the wobbles formed on one of the land tracks have a phase difference of π with the wobbles of a very next land track in the radial direction of the recording medium, and the wobble signal determiner determines whether the wobble signals in the first and second channels are land or groove

wobble signals based upon whether the wobble signals are detected by the respective first and second sample and hold circuits.

45. A servo controlling method for an optical recording and/or reproducing apparatus having a pickup for tracking a recording medium, the servo controlling method comprising:

outputting two signals in response to a light signal reflected from the recording medium having land tracks and groove tracks, wherein the land tracks and groove tracks are wobbled, and the groove tracks have a same frequency as and are out of phase with the land tracks; and

determining a wobble signal from the two signals, and in response, generating a control signal to move the servo.

46. The servo controlling method according to claim 45, wherein the determining of the wobble signal comprises:

detecting the wobble signal from the two signals;

determining whether one of the tracks, which is currently tracked by the pickup, is a groove track or a land track based on the wobble signal, to generate a determination signal; and

generating the control signal based upon the wobble signal and the determination signal.

47. The servo controlling method according to claim 45, wherein the determining of the wobble signal comprises:

adding the two signals to generate an added signal; and

sampling and holding the added signal to generate the wobble signal.

48. A servo controlling method for an optical recording and/or reproducing apparatus having a pickup for tracking an optical recording medium and a servo to move the pickup, comprising:

outputting two signals in each of two channels in response to a light signal reflected from the recording medium having land tracks and groove tracks, wherein the land tracks and groove tracks are wobbled, and the groove tracks have a same frequency as and are out of phase with the land tracks; and

determining at least one wobble signal from at least one of the two channels, respectively, and in response, generate a control signal to move the servo.

49. The servo controlling method according to claim 48, wherein the wobbles of the groove tracks or the land tracks which are a first type of tracks are out of phase with the wobbles of the next other type of track and the wobbles of the other type of tracks are in phase with the wobbles of the next first type of tracks, or the wobbles of the groove tracks and the land tracks are out of phase with the wobbles of the next other types of tracks, the determining of the at least one wobble signal comprising:

detecting the at least one wobble signal from the at least one of the two channels;

determining whether one of the tracks, which is currently tracked by the pickup, is a groove track or a land track based on the at least one wobble signal, to generate a determination signal; and

generating the control signal based upon the at least one wobble signal and the determination signal.

50. The servo controlling method according to claim 49, wherein the determining of the at least one of the two channel further comprises:

adding the two signals in the first one of the two channels to generate an added signal;

generating a first wobble signal based upon the added signal;

subtracting one of the two signals from the other one of the two signals in the second one of the two channels to generate a subtraction signal; and

generating a second wobble signal based upon the subtraction signal;

wherein the determining whether one of the tracks is the groove track or the land track comprise generating the determination signal based upon the first and second wobble signals.

51. The servo controlling method according to claim 50, wherein the wobbles formed on one of the groove tracks have a phase difference of π with the wobbles of a very next groove track in a radial direction of the recording medium, the wobbles formed on one of the land tracks have a phase difference of π with the wobbles of a very next land track in the radial direction of the recording medium, and the servo controlling method further comprising detecting positions of the land tracks and the groove tracks and detecting whether a corresponding land or groove track number is an odd number or an even number based upon the determination signal and the first and second wobble signals.

52. The servo controlling method according to claim 41, wherein the recording medium is a rewritable servo controlling method further comprising determining switching signals between the groove tracks and the land tracks based upon the wobble signals from both the first and second channels.

53. The servo controlling method according to claim 51, wherein the recording medium further comprises physical identifier areas in each of the land and groove tracks, the servo controlling method further comprising detecting the physical identifier areas in the first and second channels, respectively, and the generating of the control signal further comprises generating the control signal based upon the detected physical identifier areas.

54. The servo controlling method according to claim 50, wherein the wobbles formed on one of the groove tracks have a phase difference of π with the wobbles of a very next groove track in a radial direction of the recording medium, the wobbles formed on one of the land tracks have a phase difference of π with the wobbles of a very next land track in the radial direction of the recording medium, servo controlling method further comprising determining whether the wobble signals in the first and second channels are land or groove wobble signals based upon the first and second wobble signals.